AVVPAT STANDARDS

Proposed Changes to Accessible Voter Verified Paper Audit Trail (AVVPAT) Standards

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I.   SUMMARY

As part of the consideration of the application from Sequoia Voting Systems for certification of its VeriVote Accessible Voter Verified Paper Audit Trail (AVVPAT) system, staff and panel members raised several points of potential conflict between the systems design and the existing California AVVPAT standards.

Subsequently, as part of a survey conducted the HAVA Section 301 Task Force, several other vendors raised concerns or questions about certain portions of the standards.

This report summarizes those concerns for consideration.

II.   PROPOSED MODIFICATIONS TO AVVPAT STANDARDS

There are several different changes that were proposed either as part of the VeriVote application or the HAVA Section 301 Task Force survey. Below is a description of the most significant. Please note these are recommended changes from the vendors that responded to the survey, not Secretary of State staff.

A. Audio Stream

Section 2.4.3.1.2 of the Accessible Voter Verified Paper Audit Trail Standards reads that, "The data relayed to the audio device must come either directly from the data sent to the printer or directly from the paper record copy." In other words, it requires a hardware solution to the delivery of the audio stream to voters using that functionality. Without such a standard requiring either such a hardware solution or open source code, voters using the audio function would still be dependant on proprietary code as tested on the federal, state and local level for the verification of their ballot.

Four vendors (Advanced Voting Solutions, Diebold, Hart and Sequoia) have run into hardware design issues related to this standard. In particular, they have raised a concern about how to deliver audio in this matter for character-based languages.

Options for consideration by the Panel include:
1) Leaving the current language.
2) Removing the current language entirely.
3) Replacing the current language with a requirement that the portion of the code delivering the audio stream be open-source.
4) Replacing the current language with a requirement that the portion of the code delivering the audio stream be open-source by some future date (i.e. November 2006).

Leaving the current language would require some or all vendors to redesign their equipment and could result in significant delays in certifying equipment that would meet the HAVA and AVVPAT accessibility requirements.

Removing the current language entirely would expedite the certification process but would require voters using the audio stream to still rely upon proprietary code as verified through federal, state and local testing.

Replacing the current language with an open-source requirement would still allow voters using the audio function any additional level of verification beyond the proprietary code while removing the hardware standard that has caused technical difficulties.

Putting that requirement in place immediately would cause at least some vendors to have to rewrite their code resulting in delays in the certification process. Allow a transition period would allow the current certification process to move forward to meet the HAVA requirements while still requiring an additional level of verification beyond the propriety code in the long-term.

B. Bilingual Ballots

Section 2.3.4.2 of the standards reads that, "The paper record copy shall be printed in English and in the language the voter used to cast their vote on the DRE." In other words, for voters casting their ballot in a language other than English, the standard requires that the paper record be bilingual.

Several vendors (Hart and Sequoia) have raised concerns about this standard as it would cause the paper record to be a different length for voters casting their ballot in English versus another available language. This presents several design problems. In addition, at least one vendor has raised a concern that this standard may conflict with federal law.

This standard was originally added at the recommendation of the counties to aid in the counting of the ballots in the case of a recount. Several of those counties have subsequently recommended removing the requirement.

Options for consideration by the Panel include:
1) Leaving the current language.
2) Replacing the current language with a requirement that the paper record be printed only in the language used by the voter on the DRE.
3) Removing the current language entirely.

Leaving the current language would require some vendors to redesign their equipment. Replacing the current language with a requirement that the paper record be printed only in the language used by the voter on the DRE would require some other vendors to redesign their equipment. Removing the current language entirely would allow flexibility in design based on market demands.

C. Sequential Storage of Votes

Section 2.1.3 of the standards reads that, "The AVVPAT system shall be designed to ensure secrecy of votes so that it is not possible to determine which voter cast which paper record copy and shall comply with federal and state secrecy requirements."

Several vendors (Advanced Voting Solutions and Diebold) have raised questions whether AVVPAT systems that store the votes sequentially (i.e. reel-to-reel systems) would meet this requirement. Staff has previously concluded that such systems would meet the requirement if they included procedural solutions to protect the secrecy of the vote. Members of the public and the panel have previously raised concerns about this interpretation.

Options for consideration by the Panel include:
1) Leaving the current language while advising vendors that procedural solutions may be acceptable and will be considered on a case-by-case basis.
2) Leaving the current language while advising vendors that procedural solutions alone will not meet this requirement.
3) Modifying the current language to explicitly allow reel-to-reel systems.
4) Modifying the current language to explicitly ban reel-to-reel systems.
5) Removing the current language entirely.

Leaving the current language while advising vendors that procedural solutions alone may meet this requirement or modifying the current language to explicitly allow reel-to-reel systems would expedite the certification process but may not address the secrecy concerns.

Leaving the current language while advising vendors that procedural solutions alone would not meet this requirement or modifying the current language to explicitly ban reel-to-reel systems would require some vendors to redesign their equipment and could result in significant delays in certifying equipment that would meet the HAVA and AVVPAT accessibility requirements.

Removing the current language entirely would expedite the certification process but would also not address the secrecy concerns and would remove the requirement that the vendors find a procedural alternative.

D. Real Time Audit Log (RTAL)

Section 1.2 of the standards reads that, "AVVPAT systems may be designed in various configurations. In all such devices, upon completion of selecting his or her contest choices on the DRE, the voter shall have the ability to verify his or her selections on a

paper record copy." In other words, the standard requires that the verification of the paper record copy occur after the voter is done making their selections in all contests.

One vendor (ES&S) has suggested a design which they refer to as a real time audit log in which the voters selection is printed at the same time they make their selection on the DRE rather than at the end of the process.

Options for consideration by the Panel include:
1) Leaving the current language.
2) Removing the current language requiring the paper record to be printed after the selection process is complete.

Leaving the current language would not allow for real-time-audit log designs to be considered for certification. Removing the language would allow for such designs to be considered.

E. "Under Glass"

Section 2.4.1 of the standards reads that, "The paper record display unit shall allow the voter to inspect the paper record copy without physically handling the paper record copy. . ." The purpose of this requirement is to ensure a one-to-one relationship between the electronic record and the paper record and to comply with federal anti-vote selling requirements.

One vendor (Accupoll) has suggested a design where the paper record would not be physically handled by the voter. Under their design, the voter would take the ballot to an in-precinct barcode reader. The electronic record of the ballot would not be added to the tally until a barcode on the paper record was read by said barcode reader, designating that is had been deposited in the ballot box.

Options for consideration by the Panel include:
1) Leaving the current language.
2) Removing the requirement that the voter not physically handle the paper record. This would require changes to approximately a dozen sections of the standards.

Leaving the current language would not allow for designs in which the voter can handle the paper record for certification and would result in delays in seeking certification for at least one vendor. Removing the language would allow for such designs to be considered and would expedite the application process for said vendor.

F. State Law

Senate Bill 1438 codifies several of the Secretary of State's earlier requirements as related to AVVPAT. However, some of its provisions require a change to the existing standards.

Specifically, the first sentence of the second paragraph should be changed to read: "These standards shall be effective beginning ~~June 15, 2004~~ January 1, 2005 for all DRE voting systems purchased after that date and beginning January 1 ~~July 15~~, 2006 for all DRE voting systems"

Not changing this section would put the standards in conflict with state law.

III. <u>PUBLIC COMMENT</u>

In response to the public meeting notice being issued and allowing for written submissions, we have received three correspondences specific to this item. Two of the correspondences inquired about the nature of the item and when any proposed changes to the AVVPAT standards would be made available for public review.   The third correspondence advocated making sure the AVVPAT was available to voters as soon as possible.

In addition, several comments were received by voting system vendors were received prior to the meeting as part of the HAVA Section 301 Task Force survey. Those comments are summarized above.